ROYAL ASTRONOMICAL SOCIETY.

United States' Astronomical Expedition to Chile.

IN a former number, notice was given of an astronomical expedition to Chile for the purpose of determining the parallaxes of *Mars* and *Venus* near opposition, and thence concluding the parallax of the sun. Dr. Gerling, of Marburg, suggested this undertaking in the *Astronomische Nachrichten*, and Lieut. Gilliss, U.S.N. has been appointed to the charge of it. Instructions have been drawn up by Lieut. M. F. Maury, U.S.N. Superintendent of the National Observatory; and copies of this circular have been forwarded by Lieut. Gilliss to most of the observatories in England,* asking for such co-operation as it may be thought expedient to afford.

Lieut. Gilliss proposes to measure the position of the planets with respect to certain fixed stars at given dates which are carefully tabulated. The planets and stars are also laid down on charts on a convenient scale. Corresponding observations on the same days with the same stars, and meridian observations of the planets, are wanted.

" Those astronomers who are disposed to forward the objects of the expedition, so far as to co-operate with it in conducting an auxiliary series of observations, will perceive that the results of their labours will be enhanced by using, wherever practicable, the stars of comparison which Lieut. Gilliss has selected, and which are given in Tables I. and II. of the circular, and by following the plan of observations proposed by him and herein explained.

" Each co-labourer is requested to send annually to the Superintendent of the National Observatory, at Washington, his observations, with an account of the instruments with which they were made, together with such other information in relation thereto as is necessary to a full understanding and appreciation of them and the results arising therefrom."

As some delay may occur in forwarding copies of the circular to observers who would wish to join in the operation, the approximate places of the following stars are extracted from the circular, for comparison with *Mars* in November next :—

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* There are a few spare copies of the circular which will be given to any gentleman, on application, who possesses the inclination and astronomical means of making corresponding observations.

	Mag.	R.A. h m s	N. Decl. ° ′ ″	Days of Comp.
Bessel Z. 348	9	6 18 48	24 20 52	1, 2
—	9	27 55	31 37	3, 4, 5, 6
—	7·8	29 6	35 6	7, 8
B.A.C. 2154	6·7	28 15	42 32	9, 10, 11
H.C. 12557	9	25 51	44 42	12, 13
Bessel Z. 348	9	28 47	24 58 22	14, 15
H.C. 12554	8	25 48	25 2 4	16, 17
Bessel Z. 348	9	19 54	9 35	18, 19
— 523	9	21 15	13 36	20, 21
— 523*	9	24 2	22 24	22
— 523	9	18 9	26 47	23
— 523	9	21 45	30 43	24, 25
H.C. 12237	9	16 51	35 35	26
— 12240	8	16 58	40 39	27, 28
— 12041	8	11 18	40 19	29
Bessel Z. 405	9	6 11 37	25 45 34	30

The place of the planet may be taken from the *Nautical Almanac.*†

* Double, observe south preceding star.

† The attention of observers is particularly directed to the presumed variability of the *apparent* diameter of *Venus*, from whatever cause this may arise. It is recommended that the diameter of the planet should be very carefully measured before and after each set of comparisons with the neighbouring star. It would be prudent to make similar measures of *Mars* so as to have the power of eliminating the effect of any telescopic or personal differences.

NEPTUNE.

LIVERPOOL.   Equatoreal.   (Mr. Hartnup.)

1849.	Greenwich M.T. h m s	R.A. h m s	N.P.D. ° ′ ″	Star.
Aug. 21	12 41 3·4	22 22 56·89	100 53 33·1	B.A.C. 7918
Sept. 5	10 50 40·5	21 23·77	101 2 32·3	B.A.C. 7773, 7892
7	10 38 6·9	22 21 11·61	101 1 41·8	— — —

" The observations are corrected for refraction and parallax.

" 7892 B.A.C. is a neat double star. The components are of equal brightness, differing in R.A. about 0ˢ·5, and in N.P.D. about 3″. The comparison here made is with the star which precedes in R.A."

HAMBURG.   (M. Rümker.)

1849.	Hamburg M.T. h m s	R.A. ° ′ ″	Decl. ° ′ ″	
July 25	11 57 33·6	336 23 3·3	−10 38 2·0	Equat.
28	11 36 4·3	19 5·7	39 37·3	—
30	11 51 51·0	16 28·6	40 40·2	—
31	13 46 52·6	15 0·2	41 20·7	Merid.
Aug. 1	11 1 30·6	336 13 49·7	−10 41 44·1	Equat.